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ABSTRACT

Major social science themes for the primary grades in California center on the child's immediate environment and relationships. Focused upon in this curriculum guide for teaching social sciences to gifted primary grade students is the subtopic of the interactions between man and his environment, or how the natural environment affects people and is controlled by man. Social science content, skills, and behavioral objectives are enumerated. Teaching techniques are suggested, and both a sample unit plan and a sample lesson plan on the third grade level are presented. (KW)

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social sciences

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CURRICULUM GUIDE FOR TEACHING GIFTED CHILDREN SOCIAL SCIENCES IN GRADES ONE THROUGH THREE

Prepared for the
DIVISION OF SPECIAL EDUCATION
California State Department of Education

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FOREWORD

California public schools should provide equal opportunity for every girl and boy of school age to become knowledgeable in the basic subjects and proficient in using the basic skills of learning. And the educational programs offered by the schools should be of sufficient scope and depth to permit each girl and boy to secure the special preparation needed for entering college or for beginning employment in occupational fields in which no more than high school graduation is required.

In conducting their educational programs, the schools must employ practices that are sufficiently flexible to permit the adjustments required to meet each pupil's need of special education. The talented are among those for whom such adjustments will be necessary. Recently the State Department of Education directed and coordinated a federally funded project for the development of curriculum materials of the type needed for this program. The materials reflect the best thinking of people who are well qualified both by education and by experience. They are both innovative and professional.

This curriculum guide, one of a series, is concerned with the teaching of the social sciences to mentally gifted pupils in grades one through three. The concepts and suggestions contained in the publication merit thoughtful attention, appropriate interpretation, and wise application.

Max Rafferty

Superintendent of Public Instruction

PREFACE

This curriculum guide is one of the products of an education project authorized and funded under provisions of the Elementary and Secondary Education Act, Title V. The guide is intended for use by the teachers of pupils whose mental ability is such that they are classified as mentally gifted.

Curriculum Guide for Teaching Children Social Sciences in Grades One Through Three is one of a series of curriculum guides for use by teachers of the mentally gifted in grades one through three, four through six, seven and eight, and nine through twelve. The guides were prepared under the direction of John C. Gowan, Professor of Education, and Joyce Sonntag, his assistant, both of San Fernando Valley State College.

A curriculum framework for use chiefly by administrative and consultative personnel in developing programs for mentally gifted minors is another product of the education project. This framework was prepared under the direction of Mary N. Meeker, Associate Professor of Education, University of Southern California, and James Magary, Associate Professor of Educational Psychology, University of Southern California.

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CHAPTER 1

Introduction

The social sciences curriculum includes information about the interrelationships among individuals, broad understanding of the institutions created by man for his own guidance and control, and comprehension of the interactions between human beings and elements of their natural environment. Ward suggests that it is the gifted person who will plan and effect innovative change and a creative restructuring of society.[1] The education of gifted people must include, then, a breadth of knowledge about man and his works and, even more imperatively, must guarantee development of the cognitive processes underlying logical thought, problem solving, creative production, and systematic evaluation. This education must stress the growth of effective processes leading to empathy with mankind.

The social science curriculum is uniquely appropriate for gifted children because of its great range of intriguing topics and its rich array of available materials and resources. Since most bright children are curious and eager to explore interesting topics and since these children tend to learn readily and to retain what they have learned, their education should be product-centered.[2] How well the pupil learns to plan, discover, apply, analyze, evaluate, predict, extrapolate, or synthesize is of far greater importance than how rapidly he acquires facts. Learning how to learn, in the sense of acquiring learning sets that can be transferred to new situations, will be of enduring value to the gifted person.[3]

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[1]Virgil Ward, *Educating the Gifted.* Columbus, Ohio: Charles E. Merrill Publishing Company, 1961, pp. 84-85.

[2]See Walter B. Barbe and Edward C. Frierson, "Teaching the Gifted – A New Frame of Reference," in *Psychology and Education of the Gifted.* Edited by Walter B. Barbe. New York: Appleton-Century-Crofts, Inc., 1965, pp. 321-24.

[3]See Robert M. Gagne, "The Acquisition of Knowledge," *Psychological Review,* LXIX (1962), 355-65.

This curriculum guide is planned for use in a homogeneous class of mentally gifted minors. However, many of the ideas can be adapted readily to a cluster group of gifted in a regular class setting. Except for activities such as dramatics that require groups of children, many of the activities will be usable with a single gifted child whose needs suggest a specialized approach. Notations throughout the guide call attention to possible adaptations for clusters or for individuals; further appropriate ideas may be extrapolated by the teacher.

Major social science themes for the primary grades in California center on the child's immediate environment and relationships. The themes begin with the home, the school, and the community, then branch outward to encompass other communities, the nation, and the world. Although gifted children need to know the things their chronological peers are learning, the objectives and experiences written into this curriculum emphasize those areas especially relevant to the education of the gifted.

An important subtopic within the social science framework for the primary grades is the effect of the natural environment on people and on their way of living and the ways in which the natural environment is, in turn, controlled and utilized by man.

This subtopic of the interactions between man and his environment has been selected for emphasis in this guide not because it is the major theme or the only one that could have been so used but because it lends itself to the exploration of material likely to be novel and interesting to the bright child. The subtopic is used here as the vehicle for a process-oriented approach that will encourage mentally gifted pupils to learn to use a wider variety of intellectual operations and to develop thinking abilities of a higher level.

The guide relates closely to the Guilford "Structure of Intellect" model and to the taxonomies of educational objectives by Bloom and others.[4] The Guilford model provides a theoretical basis or rationale for the selection of teaching methods and curricular experiences. By relating to the model, the teacher can plan activities designed to require students to use certain of the higher intellectual operations and to enable students to produce particular intellectual products or outcomes.

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[4]See J. P. Guilford, *The Nature of Human Intelligence.* New York: McGraw-Hill Book Company, 1967. See also *Taxonomy of Educational Objectives – Handbook I: Cognitive Domain.* Edited by Benjamin S. Bloom. New York: David McKay Inc., 1956. See also David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia, *Taxonomy of Educational Objectives – Handbook II: Affective Domain.* New York: David McKay Company, Inc., 1964.

The Bloom taxonomies classify educational goals in an ordered scheme ranging from simple to complex in both the cognitive and the affective areas. These taxonomies provide a rational basis for the development and organization of materials, instructional techniques, and evaluative devices appropriate to the attainment of specific educational objectives.

Among the suggested strategies for teachers listed in this guide are many that relate to those described by Williams in his three-dimensional cube model. The dimensions of Williams' cube include subject areas in the elementary curriculum. Thus, a given subject area can interact with any of 23 teaching strategies to produce any of seven thinking behaviors related to creativity. This model provides another usable construct for the classroom teacher who is seeking ways to extend the breadth of cognitive processes in gifted pupils.[5]

[5]Frank E. Williams, "Creativity – An Innovation in the Classroom," in *Productive Thinking in Education.* Edited by Mary Jane Aschner and Charles E. Bish. Washington, D.C.: National Education Association, 1968, pp. 281-82.

CHAPTER 2

Content, Skills, and Behavioral Objectives

This chapter deals with content, skills, and behavioral objectives in the social sciences for gifted pupils in grades one through three.

Social Science Content

Social science content has to do with facts and generalizations.

Facts

Community workers serve the home in many ways. Community agencies perform tasks beyond the scope of a single individual or family.

Many people work at school performing different tasks.

Schools serve the community in a variety of ways.

Natural resources help provide for basic human needs. Man can modify nature to better meet his needs. Some aspects of nature still are uncontrolled.

There are different forms of government at the local, state, national, and international levels.

In a democratic society man is directed and controlled by laws that he helps to shape.

Communications media provide for exchange of ideas and information.

Generalizations

Families everywhere are alike in some ways and different in other ways.

Family members have differential responsibilities to one another.

Homes within a community differ from one another. People work at a variety of different jobs.

Cooperation among communities is enhanced by communications media.

Areas change over a period of time because of natural forces and the intervention of man.

People everywhere need food, clothing, and shelter. People are affected by their environment, interact with it, and modify it to a degree.
Weather, climate, and topography influence how people meet their needs.
People seek change as a means of improving their lot.
People move in an effort to better their conditions.
Movement of people causes regional and community problems in planning for services and in using resources.
Man is able to modify many aspects of his environment.
Major industries develop where resources are plentiful.
Present conditions are always related to what has gone on in the past.
Communities have specific origins and patterns of development related to environmental and cultural factors.
Life is easier today because of the contributions of science and invention.
Natural resources are dissipated when man fails to control their use.
People working together can effect great environmental change.
Life in the community is influenced by its natural environment.
Land use is affected by terrain, soil, climate and weather, water, and local customs.
Natural resources are in limited supply, so conservation is essential.
Scientific knowledge has increased man's control over natural forces.
Man can change the face of the land.
People satisfy their basic needs in a variety of ways.
Man must interact with the environment in order to survive.
Cooperation among men results in greater environmental control than can be managed by individuals.
Man must be wise in his interactions with the environment lest he damage or destroy the balance of nature.
If future generations are to be served, man must restore and conserve natural resources.

Social Science Skills

The gifted pupil in grades one through three should master a number of social science skills. He is expected to:
Learn to tell time, use a calendar, and record time
Learn to make and use maps and locate places on maps and globes
Relate world events to maps and globes
Learn geographical terms and use them correctly
Learn directions and directional terms (north, south, east, west)
Profit by visiting places of historical interest

Discuss current events and their meaning to community, nation, and world
Find and gather reference material on a given topic
Organize and evaluate information
Participate actively in group planning and group discussion: learns to be loyal, fair, dependable in his group
Learn the national anthem
Learn the sources of authority and appreciate the function of rules
Learn to respect other people's property
Develop increasing responsibility for self

Social Science Behavioral Objectives

Behavioral objectives in the social sciences are identified according to grade level as follows:

Grade One

1. Given the problem of knowing the individual duties, responsibilities, and interrelationships of family members, the pupil will be able to tape-record brief but appropriate role-playing sequences where he acts the parts of various family members participating in age- and sex-related tasks.

2. Given a list of three different cultural groups, the pupil will be able to state orally how each group finds and prepares its major food item, creates an appropriate shelter, and works for a living.

3. On the basis of the responses to the previous questions, pupils will be able to infer a logical reason or explanation for the use of each particular food, shelter, or type of work mentioned.

4. The pupil will be able to cite at least two examples of the effects of local climate or terrain on the types of homes, crops, or jobs found in the community.

5. Given the problem of finding some area of the school or community that needs improvement, each pupil will contribute at least two ideas toward a change that the children themselves could effect.

6. Given a list of ten products, the pupil will be able to identify eight correctly and tell whether they are locally made. If the products are not locally made, the pupil will be able to tell where they come from.

7. The pupil increasingly values the interdependency among individuals within and between communities as observed in his willingness to accept responsibility for his own actions, to share in

the work at home and at school, and to take part in community activities.

Grade Two

1. Given one fact about his environment (very rainy, poor soil, and the like), the pupil is able to suggest three ways in which this one thing affects persons in the community. He is also able to suggest a way in which this variable can be modified by man's intervention.
2. After the teacher reads an open-ended problem story dealing with individual freedom, the pupil is able to respond with an original solution consistent with the idea that responsible freedom does not impinge on the freedom of others.
3. Given a group of pictures of clothing items worn in specific areas of the world (e.g., serape, parka, muk-luks), the pupil will be able to identify the item correctly and speculate as to how climate and availability of resources have influenced the development and use of the item.
4. After reading or hearing a story about a pioneer family, the pupil will be able to write a list of at least five ways in which the modern family is more dependent on others for products and services than the pioneer family was.
5. After a discussion of the origin of food products, the pupil will be able to complete a regional product map.
6. After viewing audiovisual materials dealing with several cultures, the pupil will be able to demonstrate an understanding of how people live in different ways because of cultural heritage and environmental factors. He will write a story about an imaginary child in an imaginary land, using a plausible group of stated environmental variables.

Grade Three

1. After class discussion about where individual pupils and/or their parents were born and how far and how frequently some families have moved, the pupil will indicate his awareness of some problems and some advantages arising from mobility by being able to list at least three effects that movement of people has on the community.
2. Given the problem of showing how cooperation better enables people to meet their needs, the pupil will be able to write and illustrate a two-part story. Part 1 will show how a contemporary family would live if it had no services from others; Part 2 will show how conditions would be changed with services from others.

3. Given the hypothetical choice of living in a world independent of the help and cooperation of others, the pupil will understand and verbalize the consequences of living independent of help.

4. Given the problem of what makes a good citizen in a community, the pupil will be able to state at least three factors that contribute to responsible citizenship.

5. Given ready access to magazines, newspapers, and TV newscasts in the classroom, the pupil will show his awareness of current events by increasing his contributions to the class discussions and by increasing his written contributions to the class newspaper.

6. Without the aid of references, the pupil will be able to relate in logical sequence the origin and development of his home community.

7. Using knowledge gained from resources, from speakers, and from library books, the pupil will be able to list at least three public services paid for by taxes or voluntary contributions.

8. Using any reference he desires, the pupil is able to produce an illustrated booklet on communications that pictures and describes the major communications media.

9. Given the background he gained in preparing the communications booklet, the pupil is able to suggest at least three reasons why an informed public is more desirable than an uninformed public.

10. Using any references he wishes, the pupil is able to cooperate within a small committee of classmates in writing and producing a skit illustrating life in the community without access to innovations such as running water, electricity, engines, and the telephone.

11. Using knowledge gained in researching and writing the skit about life without modern inventions, the pupil is able to give a three-minute speech on the topic "How Life Is Easier and Better Today Than One Hundred Years Ago."

12. Given the problem of demonstrating his understanding of the differences between urban and rural life, the pupil is able to tape-record, privately, up to five likenesses and five differences and is able to judge which he feels is "better" and why.

13. Using a reference book of his choice, the pupil will plan and perform a simple science experiment to illustrate a conservation problem (e.g., soil erosion, soil depletion, mineral depletion, forest product waste, air pollution).

14. Given free access to all media, the pupil is able to plan and produce a simple mural or diorama depicting a community from another part of the world that contrasts sharply with his own in terrain, climate, products, dress, food, and customs. The pupil is able

to find answers to questions posed by his classmates on the depicted community.

15. On the basis of the pupil's study of another culture, he is able to state at least three values inherent in that way of life and is able to state at least one predicted change that may occur as the culture comes into the mainstream of world life.

16. Given free access to daily newspapers, news magazines, and TV newscasts, the pupil will be able to select three distinct news items that illustrate man's increasing control over his environment.

CHAPTER 3

Teaching Techniques

This chapter deals with specific techniques that the teacher of the mentally gifted can use to stimulate interest in the social sciences. These techniques are listed as follows:

1. Introduce perplexity and motivation to explore books, articles, and films on the natural environment (water, wind, soil, mountains, rain, sea, forests, mineral resources, seasons) through posing questions which indicate that a contradiction or a point of confusion exists that may be resolved by "finding out." Sample question: If we can control rivers with dams, then why do we still have floods?

2. Encourage interest in the unit by providing resource persons who can relate data and answer children's questions (e.g., a farmer, a lighthouse tender, a harbor pilot, a seismologist, a ranger, a geologist, and so forth).

3. Develop divergent thinking by posing open-ended questions such as the following: If we knew what caused earthquakes, would that help us in controlling them? Man now knows how to create rain under certain circumstances; how many ways can you think of in which this ability might be helpful? Harmful?

4. Encourage the evaluation of situations by asking such questions as the following: What do you think would be the results if every farmer in the world immediately adopted the most modern farm practices? Would this change have any effect on our community?

5. Encourage visualization skill by suggesting that the children imagine they are a wave, a grain of soil, a raindrop, a forest seedling, or a lump of coal. Then have them write their point of view of some particular conservation practice by man or some environmental force in nature (a wave being tossed against the shore by a storm, soil being contour-plowed, a new seedling being planted on a barren slope, a seedling in the path of a forest fire).

6. Introduce the idea of paradoxes, using ideas taken from the social sciences, such as the following: The world's resources have been developed more rapidly as population has increased but are now

threatened because of that population increase. How can this seeming paradox be explained?

7. Make a game of finding analogies. Sample question: In the Southwest adobe bricks were used to build houses because adobe clay, which was available and cheap, insulated well in the desert heat. What other building materials in other areas of the world are available, are cheap, and provide good insulation?

8. Encourage flexibility in thinking by presenting such provocative problems as the following: If the proportions of water to earth were suddenly reversed to two-thirds land and one-third water, what are some of the things that might change as a result? How many different ways can you think of to_____? Are there other approaches that we have not discussed?

9. Promote fluency and flexibility of thought by dividing the class into two teams. Sample question: How many ways can a grain of soil get from a mountaintop down to the sea? Each team gets one turn to contribute an idea. Keep going until one side can think of no more ways.

10. Promote nonverbal responses by conducting a class session where everyone remains silent, using only sign language, pictures, and acted-out sequences.

11. Encourage affective involvement by encouraging each child to put himself in the other fellow's shoes and by encouraging the verbal description and sharing of affective feelings.

12. Require examples of change by asking questions such as these: What could we use here if we did not have_____? How could this be changed so it would not need_____? If we had only_____ and_____, how could we make_____?

13. Provide opportunity to use as many sense modalities as possible in experiencing. When discussing soil, feel it, smell it, look at it carefully. When examining a pine cone, experience the totality.

14. Require children to note attributes (inherent qualities) by recalling all the different ways water exists in nature: in lakes and rivers; as ice in glaciers; as rain, hail, snow, and so forth. Now think of all the words you can which describe water in nature (cold, wet, turbulent, calm, placid, rippled, buoyant, fresh, stagnant, and so forth). Sample questions: How does it feel? How does it smell? What does it look like? What does it do? How does it make you feel?

15. Provide opportunities for deductive thinking by giving each child a simple map showing mountains, rivers, a harbor, a valley, and the like from which he will tape-record his ideas of how wind,

weather, the river, and the sea have contributed to the present terrain.

16. Promote original thinking by telling each child to pretend that he is a mighty river or an ocean, a hurricane, a drought, or a flood. Have each child write an interesting story, telling all the ways he is influencing people.

17. Encourage seeing issues from another point of view by having a child play the part of a TV newscaster who is describing the local community as hit by a drought, inundated by a flood, threatened by an avalanche, faced with digging out after an earthquake, and so forth.

18. Require problem solving and discovery by posing a situation to which the child does not have a ready solution. Sample question: What can a map and globe tell us about the forces of nature?

19. Require the children to examine implications by asking such questions as this: What would be the result is there were no rain for five years?

20. Encourage independent thought and initiative by planning unstructured blocks of time where children are free to think, dream, or work on their own initiative.

21. Provide opportunities for children to interact in and out of school with creative, productive adults with whom they can share an interest, hobby, or area of specialization.

22. Provide frequent opportunities for artistic and aesthetic expression and encourage affective responses to these experiences. Sample suggestions: Experience a snowstorm, a warm spring rain, a "togetherness" experience; feel a furry coat; enjoy a prism or a kaleidoscope; create a "light show."

23. Encourage the development of a social conscience by having children portray various experiences. Examples: A child whose parents have no food in the house; an old person who cannot get around easily; a student who is new to the school and who is of a different race; a child who has a serious speech handicap.

24. Encourage introspection and self-understanding by providing information about easily understood psychological principles, such as the defense mechanisms. Then employ role playing to illustrate the use of these principles.

25. Help to develop awareness of part-whole and relational concepts. Examples: Rain is an aspect of climate; home is one part of the community; we are part of nature.

26. Encourage inferring from information and deducing consequences of actions. Sample questions: Given this piece of infor-

mation, is there anything we might predict? If all sailors went out on strike, what would be the consequences?

27. Encourage delay in gratification and increase in tenacity of purpose by showing children how to provide their own reinforcements and feedback. Sample suggestion: After each 15 minutes of writing, do something you especially enjoy doing for five minutes and then get back to work. It is easier to work if one has something pleasant to look forward to.

28. Build arousal of curiosity into each day's planning. Example: I'm not going to tell you who our speaker will be, but I'll give you some hints; see if you can figure it out. He has something to do with transportation. He uses very special kinds of maps to avoid danger. You be thinking about it until this afternoon.

29. Promote association of ideas by frequently playing a word-association game. Example: Who can think of some way in which each of the following pairs of words is connected: poor-sick; help-swim; rain-electricity; airplane-paper?

30. Encourage elaborative thinking by providing only the "bones" of a story, play, mobile, and the like. Have the children embellish the outline with original additions.

CHAPTER 4

Sample Unit Plan

A major area of study in the third grade social science curriculum is concerned with man's interaction with and utilization of the natural environment. This study unit provides basic knowledge and experiences that lead to an understanding of environmental forces and conditions with which man must deal. The environment must be understood before it can be controlled and used wisely. This study unit also provides background for such understanding in its concern for the power of natural forces; for man's adjustment to unmodifiable elements in the environment; for man's increasing but imperfect control over other aspects of nature; and for man's need to cooperate with others in dealing with the environment.

Environment is a strong determinant of where, how, and how well man lives. Through these lessons the child should become increasingly aware of man's dependence on nature for his subsistence. He should understand that man can intervene in many ways to better his own lot by increasing the fertility and yield of the soil; by controlling floods and erosion to an extent; by providing for drainage and irrigation; by controlling the effects of climate to a degree by his choice of clothing and habitation; and by using natural resources to provide heat and coolness.

The third grade pupil is helped to see the interdependencies and balances in nature that man sometimes has upset or destroyed through his ignorance or carelessness. Conservation of natural resources is presented as an aid to man's biological survival and as a necessity in preserving the beauties of nature for man's aesthetic satisfaction. Appropriate conservation policies are shown to be important in a period of population expansion and increased pressures for a better standard of living.

As the child understands how primitive man increased his dominance over nature when he invented tools, began to use fire, and domesticated plants and animals, the child can see more easily how modern man continues to harness natural forces for his use, protection, and benefit. The child can also relate the cooperative

efforts of many people working together for the common good to some of the huge conservation and control projects undertaken by governmental agencies.

Finally, the child is made aware that some aspects of nature continue to elude the best efforts of men. Although scientific invention and human innovation continue to mitigate the raw impact of nature, unconquered frontiers still remain.

So that visualization skill might be developed, this unit may be presented as if seen through the eyes of American children living in the year 2075. These children are seen as looking back over the record of the ways man has interacted with his environment. Their interest derives from the painful fact that America has become, by then, short of many vital resources – oil, water, lumber, good soil, minerals, and even clean air. The children are wondering where it all began, how man intervened in inappropriate ways, what needs to be done to restore and repair the damage, and what innovations and inventions may substitute for resources irretrievably lost.

Basic Content

1. Nature determines to some extent where, how, and how well men live.
   a. Primitive man existed at the mercy of nature.
   b. Advances in technology give modern man greater control over natural forces.
2. Where man has been unable to control nature, he has been ingenious in adapting to it.
3. Man's interventions with nature have had both beneficial and detrimental effects.
   a. Cooperative projects benefit large numbers of people; e.g., projects for controlling floods, providing irrigation, and the like.
   b. Man's ignorance or carelessness has resulted in despoiling land and water resources, in depleting wildlife, and in upsetting the balance of nature.
4. Man has gained partial control over certain natural forces for his use, protection, and enjoyment.
5. Some natural forces have continued to resist man's control.

Behavioral Objectives

1. Given a list of five environmental variables (wind, rain, topography, forests, and air), the pupil will be able to name several ways each is partially or wholly under the control of man.

2. After free exposure to the materials of this unit, the pupil will be able to draw an analogy between man's incomplete control over nature and a parent's incomplete control over a child.

3. Given access to a teacher-made file of pictures illustrating the beauty and grandeur of nature and a second picture file showing the disastrous results of natural and man-made catastrophes, each pupil will be able to translate his feelings to words and will describe how a given picture makes him feel.

4. Given a list of three or four variables, the pupil will be able to describe what might happen in nature as a result of these factors occurring together: wind, waves, seacoast; thunder, lightning, drought, timber; fish, factory, river, beach; woods cut down to build a farm, wild turkeys, guns.

5. After exposure to reading, films, and resource persons on conservation, the pupil will be able to associate ten flash cards of visual stimuli with an appropriate recalled aspect of conservation. For example, a flash picture of ocean waves might recall how waves wear down a coastline; a picture of badlands may recall the need for contour plowing; a picture of a flood may recall the need for watersheds of dams.

6. Without adult suggestion the pupil will show an increase in vocal support and rationale for practices that lead to appropriate environmental control rather than to inappropriate control practices.

7. Given a specific problem in environmental control (e.g., the devising of a plan whereby man could live comfortably in an area where the outside temperatures daily ranged between freezing and 110 degrees F.), the pupil will be able to draw up a logical plan.

8. Given the plans devised by other students for coping with a problem of environmental control, the pupil will be able to judge the value of each plan in terms of logic and appropriateness.

Generalizations and Concepts

1. Man does not yet control all natural forces, although his knowledge and control are constantly increasing.

For the children: Eva Knox Evans, *Why We Live Where We Live*[1] (first two chapters expecially pertinent in explaining how nature determines why we live in certain areas); Robert Irving, *Hurricanes and Twisters* (readable information on all aspects of these storms);

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[1]Complete entries for all references given in this section can be found under "Selected References" at the back of this publication.

George Bonsall, *Weather* (discusses many aspects of weather in understandable terms).

2. Where man has been unable to control nature, he has been able frequently to make adaptations to it through his inventions and innovations.

For the children: Irving Robbin, *Caves to Skyscrapers* (tells how man has successively improved his habitations; may be interrelated with ideas about climate, terrain, natural resources available); Walter Buehr, *Through the Locks* (interesting general facts about canals, plus information on particular famous canals); Irving Robbin, *Basic Inventions* (contains information to help child relate man's inventions to his increasing control over nature).

For the teacher: Fletcher Pratt, *All About Famous Inventors and Their Inventions* (the story of "Cotton Gin and Reaper" to be read to the children; idea of cotton becoming unduly important to Southern economy to be interrelated; land overplanted and soil impoverished as a result; overplanting caused by use of reaper; ensuing dust-bowl conditions in plains area).

3. Both beneficial and harmful consequences can ensue from man's interactions with nature, so planning and foresight are essential.

For the children: Helen Bauer, *Water: Riches or Ruin?* (introduction to conservation; chapters on soil, man's interventions, erosion, fire, plus positive conservation suggestions); Carroll Lane Fenton and Mildred Adams Fenton, *The Land We Live On* (a pick-up book, beautifully illustrated, with poetic one-page descriptions of natural features, such as badlands, buttes, rivers, and the like).

For the teacher: Clarence J. Hylander, *Wildlife Communities* (introduction to ecology and balance of nature; how wildlife adapts to various environments; wildlife sanctuaries in North America).

4. Because natural forces are interdependent, modification of any single aspect can have pervasive effects.

For the children: Millicent E. Selsam, *How Animals Live Together* (animal interdependencies and social relationships); Lorus J. Milne and Margery Milne, *Because of a Tree* (how a tree is both shelter and food for a variety of living creatures; interdependency in nature).

For the teacher: S. Carl Hirsch, *The Living Community* (ecology; interdependence in nature; "No Place Like Iokas," a fine chapter to read as an introduction to this whole unit; "The Orderly Wilderness" – the balance of nature explained clearly).

5. Conservation of natural resources has developed as a reaction against wasteful exploitation.

For the children: Ivan Green, *Wildlife in Danger* (describes various forms of wildlife in danger of extinction).

For the teacher: Carl Walter Carlson and Beatrice Wells Carlson, *Water Fit to Use* (ideas about water pollution and conservation of water resources).

6. Each individual can contribute positively to the conservation and enhancement of the natural environment.

For the children: Wilfrid S. Bronson, *Freedom and Plenty: Ours to Save* (ties conservation into responsibility to our country's future; tells how resources have been used and abused; makes positive conservation suggestions); Dorothy P. Lathrop, *Let Them Live* (wildlife conservation); F. C. Smith, *The First Book of Conservation* (all areas of conservation covered in simple terms).

7. Since some attempts at control of nature are too difficult and costly for individuals, groups of people or governmental agencies must undertake the larger projects.

For the teacher: Henry Billings, *All Down the Valley* (story of the Tennessee Valley Authority; Chapter 11, pp. 142-68 especially good on reclaiming the land); Fon W. Boardman, Jr., *Tunnels* (Chapter 10, pp. 128-39: many large cooperative tunnel projects discussed, illustrating cooperation among groups).

8. Environment determines where and how men live, but man retains some control.

For the children: Eva Knox Evans, *Why We Live Where We Live.*

For the teacher: Jeannette M. Lucas, *Man's First Million Years* (how man survived, adapted, innovated, and used what nature provided).

9. The availability of natural resources directly affects man's standard of living and way of life.

For the children: Leonard Weisgard, *The First Farmers in the New Stone Age* (beautifully illustrated story of neolithic farmers, domestication of animals, tool invention, clothing, art, and religion, including glossary and pronunciation guide).

For the teacher: Jean Smith, *Find a Career in Conservation* (Chapter 10, "Guardians of Soil and Water": information on soil conservation practices; conservation needed to maintain our standard of living).

10. Man's ingenuity has enabled him to make up for some depleted resources by finding or creating substitutes.

For the teacher: Vincent Marteka: *Bionics* (how man has learned to use the systems and structures of nature as ideas for his

inventions – radar, sonar, magnetic devices, celestial landmarks, and so forth).

11. As man gains in scientific knowledge, he has fewer superstitions about nature; therefore, he learns to cope with natural phenomena realistically and rationally.

For the children: Yoshiko Uchida: *The Magic Listening Cap* (Japanese folk tales; "The Tubmaker Who Flew to the Sky": explanation of origins of rain and thunder); Miriam Cox, *The Magic and the Sword* ("The Bag of Winds": mythological explanation for the origin of wind); Donald Barr, *Primitive Man* (how early man lived and survived despite the harsh environment); Hart Stilwell, *Looking at Man's Past* (excellent for developing affective areas; appropriate attitudinal information on races and origins of people).

For the teacher: Jan Louise Curry, *Down from the Lonely Mountain* ("The Rescue of Fire": a legend about how fire was almost lost; to be contrasted with "How Maui Played With Fire" in next reference); Anthony Alpers, *Maori Myths and Tribal Legends* (illustrates folk explanations of natural phenomena).

Activities

1. Orientation of exploratory activities
   a. Have a bulletin board display of pictures (illustrating theme of "uncontrolled nature" – floods, tornados, earthquake damage, and so forth – to evoke pupil interest).
   b. Have the children individually read and explore books and supplementary materials provided for their use.[2]
   c. Show the film entitled *In the Beginning* to evoke interest in the ways early man dealt with his environment in contrast with today's methods.
   d. Take a study trip to some nearby conservation effort to see a program in action.
   e. Have small groups discuss and develop a question list of things they want to learn about.
2. Informational and developmental activities
   a. Have a resource speaker answer questions on some environmental topic (e.g., an anthropologist, a forest ranger, a county farm agent, a soil conservationist, a weather forecaster, an Army engineer).

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[2]See entries under "Selected References" at the back of this publication for suggested books and other materials.

b. Discover which kinds of food resources come from fresh and salt water to develop the idea of the importance of water.
c. Seek evidence of water pollution or soil erosion in local area and try to find out what is being done about these problems.
d. Use transparency series on "Man Learns to Control His Environment" and "The Land That Supports Us" as a basis for small group discussions.
e. Have children bring in current news articles on natural forces and on man's attempts to control these forces.
f. Provide information relating to a relief map to clarify influences of terrain on where and how man lives. Have the children do a map exercise to illustrate their understanding.
g. Have the children study a population density map superimposed over a relief map. Hazard guesses as to why certain patterns of density and sparsity of population occur.
h. Compare and contrast language, dress, habitation, food, and way of life in several contrasting cultures and seek to identify underlying environmental influences.
i. Construct a diorama illustrating the intervention of man in use and misuse of the soil.
j. Continue to add new questions to the original list.
k. Conduct a mock TV interview with a river, a forest, and a farm that are protesting their treatment.
l. Have children conduct an opinion poll among parents to assess what the parents feel are critical local conservation problems. Discuss these problems.
m. Develop a vocabulary list of new words as they are acquired.
n. Divide the class into interest groups for further study.
o. Play the role of primitive farmers; of a fish family living in increasingly polluted waters; of deer in a forest fire; of a child during an earthquake. Stress affective areas.
p. Have the children exchange information through discussions, reports, and presentations.
q. Relate to the feelings of people who are victimized by environmental forces – either natural catastrophes or disasters brought on by man. Role-play and react.

3. Concluding activities
   a. Plan and produce a play set in the year 2075. Have the characters look back over the conservation record and progress in interacting with nature.
   b. Write original stories, poems, and dramas about nature and its control.

c. Exhibit projects which have been developed during the course of the unit.
d. Make a chart showing which forces of nature are mostly controlled, which are only partially controlled, and which are not controlled at all.
e. Engage in some real conservation project.
f. Summarize on a time line the advances man has made in dealing with nature.
g. Evaluate inventions in terms of their influence on the natural environment for better or worse.
h. Predict the effects of today's conservation practices on the world 100 years from now.
i. Relate the learnings of this unit to other areas, such as literature and science.

4. Continuing activities
   a. Use resource people who may become available to discuss any aspect of man's interaction with his environment.
   b. Encourage continued reading and interest in these topics by keeping bulletin board space for news items and by providing a changing supply of books.
   c. Reinforce children's reports of visiting dams, noting evidences of floods, erosion, pollution.
   d. Endorse and encourage continued participation in conservation efforts.

Evaluation

1. Evaluation by the teacher
   a. Assess students individually and collectively at frequent intervals to see whether they have reached stated behavioral objectives. (The teacher may use his own tests, oral questioning, assessment of products, ratings on originality of contributions to discussions, observation of specific behavior change in comparison with base-line data on child.)
   b. Assess affective feelings of individuals concerning material developed during study of the unit. (The teacher may use the incomplete-sentence technique, interviews, checklists and questionnaires, projective techniques.)
2. Evaluation by parents
   a. Evaluation may be made during scheduled conferences with teacher, during class events attended by parents, or during informal contacts with the parent in the community.

b. Assess parent response to the program by noting attendance and participation at school events, letters addressed to the school by parents, and parental phone calls to the school.

3. Evaluation by students
   a. Assess student reaction to material and units. Has the program met their needs and has it been related to their interests and concerns?
   b. Solicit suggestions for additions, omissions, and change to meet student needs better.

CHAPTER 5

Sample Lesson Plan

This chapter presents for consideration a sample lesson plan for use in teaching social sciences in the third grade. Specifically, it deals with advances in technology that have given man increasing control over water resources and power.

1. Concepts
   a. Primitive man existed at the mercy of the elements.
   b. As man's knowledge increases, he is better able to cope with the forces of nature.
   c. The basis of new knowledge is previously discovered information plus an intuitive leap on the part of a creative individual who recombines the facts, adds some necessary component, and thus arrives at a "new" idea.
   d. Cooperative effort can accomplish more than individual effort in conservation projects.
2. Behavioral objectives
   a. After exploring the material in this unit, the pupil will be able to state at least three ways in which a modern American family is better off than a primitive family because of the technological advances in controlling water in nature.
   b. After seeing the film entitled *Waters Divided,* the pupil will be able to trace the change that occurred in the Columbia basin as a result of man's increasing control.
   c. How can there be a water shortage when millions of gallons of fresh water daily run into the sea? This paradoxical question should stimulate the pupil to write a paragraph or two of logical explanation.
   d. The pupil will be able to help plan and act out a play in which the many forms of water in nature (rain, the sea, rivers, floods, lakes, springs, snow, glaciers, and so forth) have sent delegates to a meeting to consider how they can outwit and resist further control by man.[1]

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[1]See Abraham Shumsky, *Creative Teaching in the Elementary School.* New York: Appleton-Century-Crofts, Inc., 1965, pp. 206-7.

3. Learning experiences
   a. Opener: Class views the film *Waters Divided* to learn about the vast power of water and about the efforts of man to control that power for his use and safety.
   b. Sample follow-up questions:
      In what ways is the Columbia different today than it was 100 years ago?
      How does a flood affect the people who live nearby?
      Does a flood have any effect on those people who live hundreds of miles away?
      How did the dams get built? Who planned them?
      Who paid for them? Why?
      In what ways is the Columbia basin different today than it was a hundred years ago? (Floods are controlled; homes and farmlands nearby are less threatened; orderly land irrigation is possible; more land is usable; electrical power is now available from hydroelectric projects; more industry is now possible; homes and farms are modernized by electricity, thus opening markets for electrical appliances; fishing is controlled.)
      How does this water control affect people living near the Columbia? (Homes, bridges, and crops are safer from drought and flood.)
      Does this control affect people who live hundreds of miles away? (Flood control extends for great distances; electricity is used in far-off cities; more products are now available to distant communities.)
      Under whose auspices were the dams built? Why? (The government funded most of them as an aid to conservation; individuals could not finance such huge projects.)
   c. Group activity: Discuss various methods of flood control and soil conservation practices.
   d. Individual activity: Read *Water: Riches or Ruin?; Freedom and Plenty: Ours to Save;* or *The First Farmers in the New Stone Age.*
   e. Development:
      Ask the children to list some things they recall from *The First Farmers in the New Stone Age* that are different today. Do any of these differences relate to water resources?
      Have the children list the many ways in which water is used by man.

Have the children discuss how they think man may have begun to control water. Irrigation? Drinking? Flood control? Show transparencies (*Man Learns to Control His Environment).*

Read a folk tale to the class about the origin of water. Why did the people have such a myth? Why do people need explanations for things?

Allow children to illustrate myths. Some children may prefer to read further in the books of mythology to find other explanations about water and the power of water.

Have the children make a time line extending from Neolithic times to present. As information is found about inventions and innovations relevant to water, put them on the time line.

Have the class listen to a recording of Smetana's *Moldau.*

Discuss how the music made them feel. Stress the use of expressive words and phrases.

Provide a choice of creative activities for expressing how the music made them feel: writing, painting, finger painting, sculpture, creative dramatics, free dancing.

Children share their projects, then join in discussion about "things that could be said about the Moldau that could be said about most other rivers."

Have children search magazines for pictures that represent advances in man's technology in dealing with water (dams, bridges, tunnels, canals, power plants, umbrellas, coats, faucets, sprinklers, showers, and so forth). Have small groups of children divide these items into two categories, those probably among the earliest invented and those probably invented later. Discuss why some of these things were invented earlier than others.

Have several children or a single child make a scrapbook of the pictures with his comments.

Ask the children the following question: How many brand new ideas or expansions on already-known ideas can you think of for controlling water? (Try brainstorming: write ideas, unevaluated, as fast as they are expressed? after all are listed, consider each and encourage evaluation and elaboration. How could these ideas be applied to controlling other aspects of nature? Would they work? Why or why not?)

Activity: Have the children draw or construct their ideas from the brainstorming session.[2]

4. Conclusion
   a. Children plan and act out a sequence in which many different forms of water (see behavioral objectives) send delegates to a meeting to plan how to outwit man and to resist his controls. Stress how one would feel if he were a river and someone built a tunnel under him, a bridge over him, or a power plant in his middle. Group activity: Several children or a single child can role-play for the rest of the class or can describe the sequence by writing about it in dramatic form.
   b. Develop a list of big ideas to watch for during the rest of this unit, asking such questions as the following: Why do people live where they do? Can men control all aspects of nature? Is the degree of control the same all over the world? Why or why not?
   c. Hold a mock trial, having pupils role-play a farmer suing the government for the loss of his farm, which has been taken for a dam site. Discuss and defend individual versus group values, long and short-range benefits, and the affective feelings involved.[3]
5. Evaluation
   a. Construct a test to cover factual content.
   b. Make projective, open-ended statements on affective learning for students to respond to.
   c. Assess integration of new information by writing a paragraph or two or a group of stimulus words on some aspect of new learning (water power, floods, and the like.) Have children write as many peripheral details as they can recall.
   d. Discuss with pupils their feelings about the lesson. Did it meet their expectations? Were they satisfied? What could be done better next time?
   e. Assess parents' feelings about the success or failure of the lesson. Solicit their suggestions and evaluations.

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[2]The foregoing activities and those that follow in the conclusion will not all be used. The teacher is urged to select those most appropriate for her group. Since time requirements vary widely, the teacher should make judgments about how much time to spend on a given activity according to the importance of the concept being developed, student interest, and so forth.

[3]Mary Jo Woodfin, "Elementary Social Studies," in *Bold New Venture.* Edited by William B. Michael. Bloomington, Ind.: Indiana University Press, 1968, p. 201.

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Films

In the Beginning, 30 min., color. (Deals with African prehistory, early farming practices, tools, means of livelihood, man's progress in coping with his environment.)

House of Man: Our Changing Environment, 17 min., color. (Shows waste of natural resources, water pollution.)

Waters Divided, 30 min. (Deals with history of Columbia River; early use of river by Indians for fishing and irrigation; building of the Grand Coulee Dam and Bonneville Dam.)

Wirritt Wirritt, 8 min., color. (Shows rock paintings by Australian aborigines which tell legend of how man learned secret of making fire.)

Yours Is the Land, 20 min., color. (Deals with man's exploitation of the earth's resources; interdependence of soil, water, forests, grasslands.)

Other Materials

Audubon Society materials (on wildlife conservation)
Time-Life Science Library Series
Transparencies

Weather (shows terms, causes, and effects of weather)
Man Learns to Control His Environment (shows man's basic needs and the manner of satisfying them under various environmental and cultural conditions)
Man's Basic Needs: Food (shows effect of environment on obtaining food)
Man's Basic Needs: Shelter (shows effect of environment in determining man's housing)
Man's Basic Needs: Clothing (shows roles of environment in determining the way a man dresses)
The Land That Supports Us (shows how the land replenishes itself under good management)

Note: All of these transparencies are available from Visual Products Division, Box 3344, DM Center, St. Paul, Minn., 55101.

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